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PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Satoru KATAGAMI et al.

Group Art Unit: 1734

Application No.: 10/043,244

Examiner: G. KOCH

Filed: January 14, 2002

Docket No.: 111373

For: APPARATUS AND METHOD FOR PRODUCING COLOR FILTERS BY
DISCHARGING MATERIAL

REQUEST FOR RECONSIDERATION

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In reply to the March 8, 2006 Office Action, reconsideration of the Application is respectfully requested in light of the following remarks. Claims 1-7, 13, 14, 16-20, 23 and 25 are pending in this Application.

The Office Action, in paragraph 3, rejects claims 1-5, 13, 14 and 16-18 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,290,352 to Marumoto et al. (hereinafter "Marumoto") and either of U.S. Patent No. 6,180,049 to Jang et al. (hereinafter "Jang") or U.S. Patent Application Publication No. 2001/0024227 to Sekiya. The Office Action, in paragraph 4, rejects claims 1-7, 13, 14, 16-20, 23 and 25 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,145,981 to Akahira et al. (hereinafter "Akahira I") and either of Jang or Sekiya. The Office Action, in paragraph 5, rejects claims 1-7, 13, 14 and 16-18 under 35 U.S.C. §103(a) as being unpatentable over EP 0 832 745 A2 to Akahira (hereinafter "Akahira II") and either of Jang or Sekiya. The Office Action, in paragraph 6,

rejects claims 19, 20, 23 and 25 under 35 U.S.C. §103(a) as being unpatentable over Akahira II and either of Jang or Sekiya, and further in view of Akahira I. These rejections are respectfully traversed.

Sekiya is not available as prior art because Applicants claim priority from JP-A-2001-006634, which was filed on January 15, 2001, which date is prior to the February 26, 2001 filing date of Sekiya. A claim of priority was filed on January 14, 2002, and certified copies of the priority documents were submitted on January 14, 2002, in compliance with 35 U.S.C. §119. Additionally, an accurate English-language translation of the priority document along with a statement that the translation is accurate, will be submitted in due course.

The Office Action repeats the assertions made in the Office Action issued August 25, 2005. Specifically, that the Marumoto, Akahira I and Akahira II references are drawn to systems and methods for color filter manufacturing, color filters manufactured by those methods, display devices incorporating those color filters and apparatuses incorporating those display devices. These references generally refer to forming line patterns on recording media by discharging inks from ink discharging nozzles in ink jet heads, attempting to optimize and/or make more efficient the color filter manufacturing methods incorporating the ink jet heads. In each of paragraphs 3-6, the Office Action again concedes that Marumoto, Akahira I and Akahira II do not disclose a control device including first, second and third motors as recited in the subject matter of the pending claims.

The Office Action relies on Jang to overcome the deficiencies of the applied references enumerated above. Applicants again respectfully submit that Jang is not analogous art as defined by the MPEP. Specifically, Applicants submit that the references are not in the field of Applicant's endeavor, nor are they reasonably pertinent to the particular problem with which the inventor was concerned.

The function of the Jang invention is a solid freeform fabrication process and apparatus for making a three-dimensional object. The technique taught by Jang is largely limited to producing parts with homogeneous material compositions. The disclosure states that to build a three-dimensional object with variations in material composition from layer to layer would be "a slow and tedious procedure." Therefore, Jang is limited to reasonably producing simple, single composition material, objects in the manufacture of micro-electronic devices. The subject matter of the pending claims relates to an apparatus and method for manufacturing a liquid crystal device having a color filter. Figure 21 represents just such a liquid crystal device. It is unreasonable to assert that a device for three-dimensional material deposition would have logically commended itself to one of ordinary skill in the art when trying to solve the problem of reduction in production time for a pattern of filter elements of a color filter.

Regardless of the above, the Office Action asserts that Jang uses first, second and third motor devices, each capable of oscillating and rotating the ink jet head around the three dimensional axis. This assertion is incorrect. While it can be argued that Jang discloses three motors, it is unreasonable to consider that Jang teaches, or even suggests, that each motor is capable of oscillating and rotating the head around the three axes.

Jang teaches a three-dimensional movement system to position the target surface with respect to the material deposition sub-system (col. 7, lines 31-40). Specifically, the target surface is positioned with respect to the material deposition system in a direction on an X-Y plane and in a Z-direction. The X-Y plane and the Z-direction define a Cartesian Coordinate System. Thus, each individual motor of Jang is only capable of moving in a linear motion, despite the type of motor provided, and not in a oscillatory and rotational manner about the axis.

The subject matter of the pending claims also teaches movement in the X-Y plane and the Z-direction, similar to the teachings of Jang. Additionally, beyond the teachings of Jang, the subject matter of the pending claims recite that each motor can move in an oscillatory and rotational motion around each defined axis (para. [0082], Fig. 10, elements α , β and γ). Therefore, each motor is capable of moving in an oscillatory and rotational motion about the axes. Jang is silent regarding any teaching, or even a suggestion, of such movement in an oscillatory or rotational manner as depicted in at least Fig. 10, and positively recited in at least independent claims 1, 5, 16, 19, 23 and 25. Rather, Jang teaches that the three motors, in combination, can move in the X-Y axis and the Z-direction.

In response to Applicants' previously having made the above arguments, the Office Action again asserts that Jang teaches servomotors (see col. 9, line 36). The Office Action then concludes that "this is a rotational motor that allows for oscillatory movement around the various claimed axis." This is an improper reading of any disclosure in Jang. Jang specifically indicates that although servomotors are among those discussed, the three axis motors in Jang impart linear motion. To read this disclosure any more broadly than for what it can reasonably be considered to have suggested is improper. There is not even a suggestion in Jang that such a capability exists or is contemplated. Applicants positively recite that the motors oscillate and rotate the inkjet around the varyingly disclosed axis. Applicants' previous arguments are limited to pointing out that Jang does not teach any motion other than a linear motion in an X-, Y- or a Z-direction. As such, it requires an improperly overly broad interpretation of the positively disclosed features of the invention of Jang to interpret that disclosure as even suggesting motors for oscillating and rotating the inkjet head around and an axis. Such overreaching is improper and unsupportable. The Office Action stops just short of conceding this conclusion where Sekiya is positively asserted as being relied upon for

disclosing the recited feature. Sekiya is, however, not available as prior art, as discussed above.

For at least these reasons, any permissible combination of Marumoto, Akahira I, or Akahira II, in some combination with Jang, cannot reasonably be considered to have suggested the combinations of all the features recited in at least independent claims 1, 5, 16, 19, 23 and 25. Further, claims 2-4, 6, 7, 13, 14, 17 and 18 would also not have been suggested by any permissible combination of the applied prior art references for at least the respective dependence of these claims on allowable independent claims, as well as for the separately patentably subject matter that each of these claims recites.

Accordingly, reconsideration and withdrawal of the rejections of claims 1-7, 13, 14, 16-20, 23 and 25 under 35 U.S.C. §103(a) as being unpatentable over any combination of the applied references are respectfully requested.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-7, 13, 14, 16-20, 23 and 25 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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JAO:DAT/kdb

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